

Remarks

This is in response to the final Office Action mailed on October 21, 2003. Claims 1, 12, 13, and 20 have been amended, support for such amendments being found, for example, at page 6, lines 20-25 and page 12, lines 21-26 of the present application. Claims 1-20 remain pending. Reconsideration and allowance of all claims are respectfully requested in view of the following remarks.

In section 2 of the Office Action, claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fierro et al., U.S. Patent No. 5,705,979, in view of Peltier et al., U.S. Patent No. 5,708,414. This rejection is respectfully traversed, and the correctness of the rejection is not conceded.

Claim 1 has been editorially amended to recite generating an alarm signal on the single signal line upon sensing a first hazardous environmental condition, the alarm signal comprising at least one voltage pulse having a duration less than 100 milliseconds. Examples of hazardous environmental conditions include, without limitation, smoke and carbon monoxide. Application, page 6, lines 20-25.

Peltier discloses, at column 11, lines 48-60, a false alarm immune sensitivity fault condition signal 370 including pulses 374a and 374b, each of approximately 100 milliseconds in duration. The waveform 370 of Peltier is used to indicate a fault condition at the smoke detector (e.g., indication of under-sensitivity or over-sensitivity of the internal radiation sensor electronics of the detector, abstract, lines 4-6). Therefore, the waveform 370 disclosed by Peltier is generated to indicate an internal fault of the detector and has nothing to do with environmental conditions external to the detector (e.g., smoke or carbon monoxide levels in the ambient air).

Therefore, one skilled in the art would not be motivated to combine the waveform 370 for indicating internal faults disclosed by Peltier with the system disclosed by Fierro to generate an alarm signal on a single signal line upon sensing a first hazardous environmental condition, the alarm signal comprising at least one voltage pulse having a duration less than 100 milliseconds, as recited by claim 1. Consequently, neither Peltier nor Fierro, alone or in combination, render claim 1 obvious. Reconsideration and allowance of claim 1, as well as claims 2-11 that depend therefrom, are respectfully requested.

Claim 12 now recites a microcontroller that determines a first environmental alarm condition upon receipt of a pulsed input from the interconnection I/O circuit of less than approximately 100 milliseconds.

For reasons similar to those provided above with respect to claim 1, neither Fierro nor Peltier suggest determination of a first environmental alarm condition upon receipt of a pulsed input from the interconnection I/O circuit of less than approximately 100 milliseconds, as recited by claim 12. Reconsideration and allowance of claim 12, as well as claims 13-19 that depend therefrom, are respectfully requested.

Claim 20 now recites that at least one of first and said second detectors is operable to generate a multi-pulse alarm message on the interconnect to indicate detection of carbon monoxide, and at least one of said first and said second detectors is operable to generate a constant DC level on the interconnect to indicate detection of smoke.

Neither Fierro nor Peltier, alone or in combination, suggest a system configured as recited by claim 20. Reconsideration and allowance are respectfully requested.

In view of the above remarks, claims 1-20 are in condition for allowance. Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. The Examiner is encouraged to contact the undersigned attorney with any questions regarding this application.

Respectfully submitted,
MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: February 23, 2004

By: Robert A. Kalinsky
Name: Robert A. Kalinsky
Reg. No.: 50,471
RAK